FACT SHEET

Module 19 Designing Safer Roads

Designing safer roads is a high priority for highway safety officials.
In 2001 there 16,214 fatalities from run-off-the-road crashes, which comprise 38.5 percent of all fatalities.

There were 740,000 roadway departure injury crashes (35 percent of all injury crashes) and 2,600,000 roadway departure crashes (40 percent of all crashes) in 2001.

On the freeway system, there were 267 fatalities involving crossover median head-on collisions – a number which may seem small in comparison to the statistics listed above.
These are extremely dangerous and tragic crashes. In fact, these crashes are three times as severe as other highway crashes. It is the extreme severity of these fatalities and injuries, as well as the fact that many of these are innocent victims that tells the real story.

Why Are Median Crossover Head-On Collisions So Deadly?

Due to the extraordinary growth of traffic and congestion on today's freeways, when a vehicle leaves the road and crosses the median, there is a high probability of hitting one or more oncoming vehicles if there isn't a median barrier.

And unfortunately, many freeways do not have median barriers to prevent these catastrophic median crossover collisions.

When many of the early freeways were built, these freeways, including the median width, were designed for forecasted volumes. No one anticipated the current high level of traffic volume and the need for median barriers. However, traffic volume and traffic congestion increased far beyond the forecasted levels. In order to improve mobility, new lanes were often added by narrowing median widths even further.

Putting It In Perspective (2001)

There is one crossover fatality for about every 200 freeway miles.

An average of 250 people are killed annually in freeway crossover crashes.

Median crashes are three times more severe than other highway crashes*

*Statistic from NCDOT

So today, with the higher traffic volumes traveling at high speeds, and narrow medians without barriers, median crossover head-on crashes are occurring with increasing frequency and deadly results.

What Does A Median Barrier Do?

Median barriers are designed to prevent vehicles from crossing the median and going into opposing lanes. There are different types of median barriers (concrete, steel, and cable) and all are designed to safely stop or redirect a vehicle that enters the median. The most commonly used median barrier in urban areas is the concrete "Jersey" barrier. Metal beam and cable barriers are commonly used in rural areas.